KAWAI

Standard MIDI Files
Compatible Sequencer

Q-80EX

Operation Guide

Contents

Introduction 2

1. Memory Capacity 3

2. BAR EDIT mode (Deleted Command) 4

3. TRACK CHANNEL mode 5

4. MONITOR mode 6

5. SYSTEM mode (ECHO) 7

6. DISK mode (Using Standard MIDI Files Format) 8

7. Other Notes 15

Q-80EX Specifications 16

MIDI Implementation Chart 17

Introduction

Thank you for purchasing the Kawai Digital MIDI Sequencer Q-80EX.

The Q-80EX is the upgraded model of Kawai's best-selling sequencer, the Q-80, with many of upgraded specifications as follows.

* Expanded Internal Memory

Up to 52,000 notes can be stored in its internal memory area, therefore Q-80EX allows you to play the songs containing a tremendously large quantity of notes and other MIDI messages.

* Standard MIDI File (Format 0/1) Compatible

The Q-80EX is equipped as completely-compatible with Standard MIDI Files format(Both Format 0/1 available), so you will be able to playback songs recorded with other device (including the old Q-80), and convert old Q-80 songs for Standard MIDI File format 1.

* Up to 32 channels controllable with 2 MIDI OUT jacks

Using the 2 MIDI OUT jacks of the Q-80EX independently, and connecting 2 units of 16 multi-timbral sound module, you can create thick and excellent ensemble performance with 32 different tone colors!

This Owner's manual just contains the detailed information regarding the newly-added specifications.
For basic use of Q-80EX, please refer to the "Q-80 Operation Guide" enclosed to your Q-80EX unit. And see this manual for operation of the newly-added specifications.

1. Memory Capacity

The Q-80EX can contain **up to 52,000 notes** in its internal memory.
And you can use all of the 52,000 notes for a SONG, therefore, the songs containing so large quantity of notes and other MIDI messages.

Data Storage Limitation

* Realtime Recording

a. When operating Realtime Recording, the available area for one-time recording is half the empty SONG area. (The available area would be less if the SONG contains any data other than note message such as EXCLUSIVE.)

b. You can record to one TRACK with 32 note polyphony.
But when operating Realtime Recording along with the TRACK playback (Overdub), polyphony will be decreased to 16 notes.

* Step Recording

a. When operating Step Recording, you can record up to 1,200 notes at once.

* Punch In/Out

a. When operating Punch In/Out Recording, the available area for one-time recording is the half the empty SONG area (the total of Punch In/Out area).

* SYSTEM EXCLUSIVE messages

When recording SYSTEM EXCLUSIVE message onto TRACKs using Realtime Recording, up to 10Mbyte (or totally 10Mbyte for a bar) can be recorded at once.
Please use DATA DUMP operation for transmitting/receiving over 10Mbyte.

Monitoring Available MEMORY area

If you want to confirm how much data Q-80 will be able to record, please take the following procedure.

(1) Simultaneously press the **CURSOR** switch and **STEP BACK** switch.

The LCD shows the available memory area as above, converting 64 notes to "1" unit of memory (max. 52,000 notes = "0856").

2. BAR EDIT mode (Deleted Command)

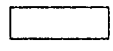
Please note that Q-80EX is not equipped with the "MOVE" command, which is available on Q-80 in BAR EDIT mode.

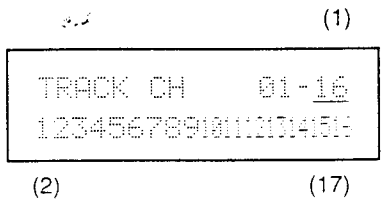
> **Note:** *When loading SONG data recorded with Q-80, Q-80EX automatically resets the MOVE value "000". (See "6. DISK mode")*

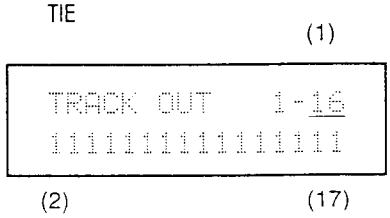
3. TRACK CHANNEL mode

[Function] Sets the MIDI channel for each TRACK, and MIDI OUT jack (1 or 2) with which the TRACK's data will be output.
The channel and MIDI OUT jack set in this mode will be varid for both the REC and PLAY procedure.

(1) Press **TIE** switch to enter TRACK CHANNEL mode.
The following will be displayed on LCD.





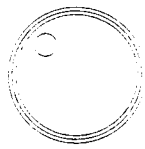


(1) TRACK GROUP

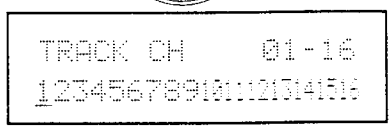
CH 1-16 : **Setting MIDI channel for TRACKs 1~16**
CH 17-32 : **Setting MIDI channel for TRACKs 17~32**
OUT 1-16 : **Setting MIDI OUT jack (1/2) for TRACKs 1~16**
OUT 17-32 : **Setting MIDI OUT jack (1/2) for TRACKs 17~32**

(2)~(17) **MIDI channel value set for each TRACK (1~16) or MIDI OUT jack value set for each TRACK (1/2)**

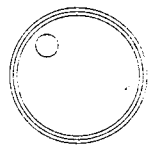
(2) Use the Increment Dial to select "CH 1-16(17-32)" or "OUT 1-16(17-32)".



(3) Press the **CURSOR** switch ">" to move the cursor to TRACK value area.



(4) Use the Increment Dial to set the CH or OUT value for a channel.

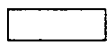


Note: You cannot set the OUT value as the TRACK's data will be output both from OUT 1 and 2.
Regardless of the MIDI OUT setting, the EXCLUSIVE message will always be output only from OUT 1.

(5) Press the **CURSOR** switch ">" to move the cursor to next TRACK value area.

(6) Repeat (4) and (5) to set the CH/OUT values for each TRACK as you require.

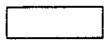
(7) Press the **CHORD** switch to return to SONG PLAY mode.

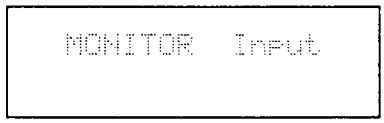


4. MONITOR mode

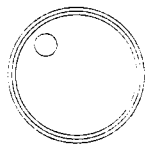
[Function] In this mode, you can easily confirm the MIDI channels for or a current data, even when a SONG is playing.

(1) Press the **REST** switch to enter MONITOR mode.



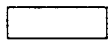


(2) Select one from "Input", "Output 1" or "Output 2" using the Increment Dial.



Input : **Shows the MIDI channel numbers of the data being received.**
Output1 : **Shows the MIDI channel numbers of the data being output from MIDI OUT 1 jack.**
Output2 : **Shows the MIDI channel numbers of the data being output from MIDI OUT 2 jack.**

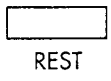
(3) Press the **CHORD** switch to return to SONG PLAY mode.



5. SYSTEM mode (ECHO)

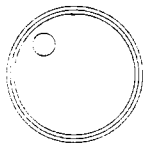
[Function] Sets the way how the Q-80EX outputs the data received through the MIDI IN port.

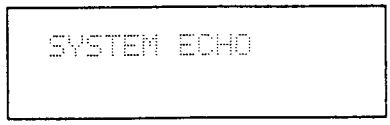
(1) Press the **REST** switch 2 times to enter SYSTEM mode.



× 2

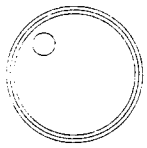
(2) Move the Increment Dial to select the command name "ECHO".

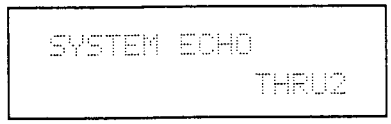




(3) Press the **ENTER**(PLAY) switch to enter next page.

(4) Use Increment Dial to select one from the following ECHO types.





OFF : **The received data will not be output.**

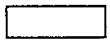
THRU1 : **All of the received data will be output through MIDI OUT 1 jack, except SYSTEM EXCLUSIVE data.**

REC1 : **During REC operation, the MIDI OUT 1 jack outputs the data of the MIDI channel which has been selected on Q-80EX as a REC channel. (This mode operates the same as THRU1 except REC operation.)**

THRU2 : **All of the received data will be output through MIDI OUT 2 jack, except SYSTEM EXCLUSIVE data.**

REC1 : **During REC operation, the MIDI OUT 2 jack outputs the data of the MIDI channel which has been selected on Q-80EX as a REC channel. (This mode operates the same as THRU2 except REC operation.)**

(5) Press the **CHORD** switch to return to SONG PLAY mode.

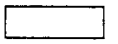


6. DISK mode (Standard MIDI Files Format)

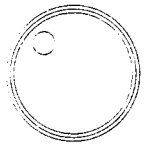
A. LOAD

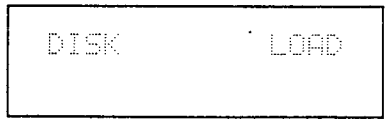
[Function] Recalls the SONG data saved onto a disk to Q-80EX's internal memory area.

(1) Press **REST** switch 3 times to enter DISK mode.

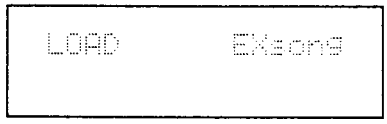


(2) Move the Increment Dial to select the menu "LOAD".





(3) Press **ENTER**(PLAY) switch to enter the next page.



(Types of data)

EXsong : **A SONG recorded with the Q-80EX, and saved with "EXsong" format**

SMF : **A SONG recorded with Standard MIDI Files data format.**

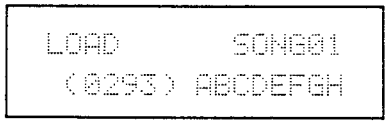
80song : **A SONG recorded and saved with the Q-80.**

EXdata : **A DATA recorded with the Q-80EX using the DATA DUMP operation, and saved with "EXdata" format.**

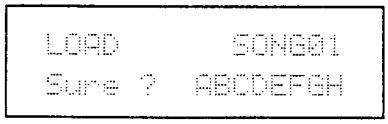
80data : **A DATA recorded and saved with the Q-80 using the DATA DUMP operation.**

(4) Use the Increment Dial to select a type of data, and press the **ENTER** switch again to enter next page.

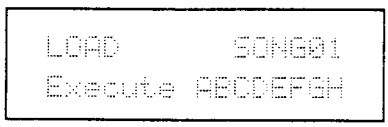
(5) Select the number of SONG(DATA) area onto which the loaded SONG(DATA) will be written.



(6) Press the **ENTER** switch.
LCD should read "Sure?"



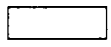
(7) Press **ENTER** again to execute the process (or **STOP** to cancel).



B. SAVE

[Function] Stores the SONG or DATA onto a disk from Q-80EX's internal memory area. (You can add the name for each SONG/DATA).

(1) Press **REST** switch 3 times to enter DISK mode.



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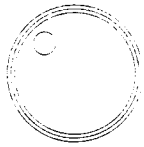
(2) Move the Increment Dial to select the menu "SAVE".



(3) Press the **ENTER**(PLAY) switch to enter the next page.

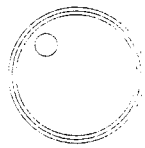
(Types of data)

EXsong : **Saves the SONG with the specified data format which is only available with the Q-80EX.**

SMF : **Saves the SONG with Standard MIDI Files data format(Format 1). The data saved with this format can be directly loaded with any other computer/sequencer (compatible with Standard MIDI Files).**

EXdata : **Saves the DATA recorded with the Q-80EX using the DATA DUMP operation.**

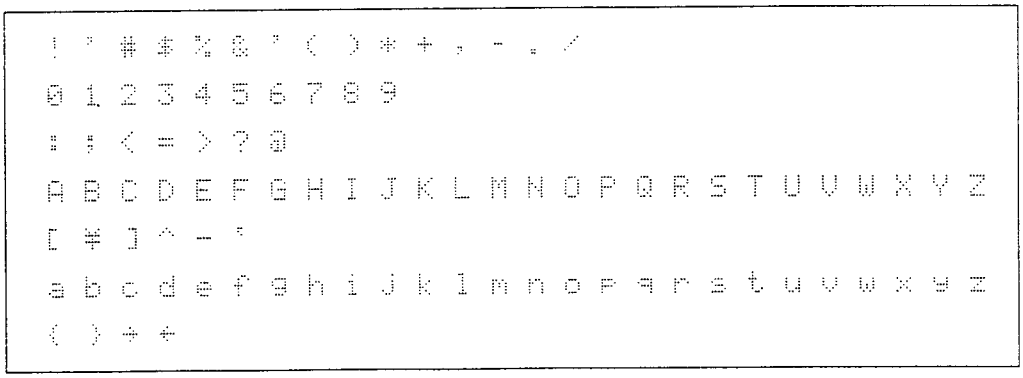
(4) Use the Increment Dial to select a type of data, and press **ENTER** switch again to enter the next page.



(5) Select the number of the SONG(DATA) to be saved.

(6) Press **ENTER** switch.
The cursor moves to SONG(DATA) name area.
(If the SONG/DATA has been already named, skip to the step10)

(7) Use the Increment Dial to select a character for the SONG(DATA) name.
The following characters can be used when naming a SONG(DATA).



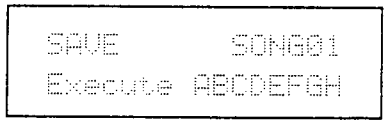
*Note: When saving a SONG(DATA) with Standard MIDI Files format, please use only **capital (ABCDE...XYZ) and numeral (0123...9) characters,** to prevent any troubles when later loading the SONG(DATA) with any other device.*

(8) Select the next character of the SONG name by moving the cursor one letter to the right using the Increment Dial.

(9) Repeat (7) and (8) to select the appropriate name for the SONG. (You may use up to 8 characters to name your SONG/DATA.)

(10) Press the **ENTER** switch.
LCD should read "Sure?" (or "Name OK?" if there is the song which has the same SONG name.)

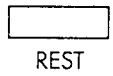
(11) Press **ENTER** again to execute the save (or **STOP** to cancel).



C. DELETE

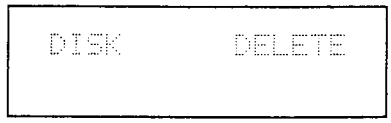
[Function] Removes the unwanted SONG(DATA) from the disk.

(1) Press the **REST** switch 3 times to enter DISK mode.

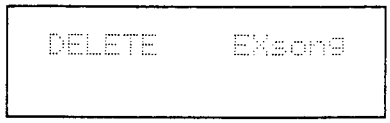


× 3

(2) Move Increment Dial to select the menu "DELETE".



(3) Press the **ENTER**(PLAY) switch to enter the next page.



(Types of data)

EXsong : **A SONG recorded with the Q-80EX, and saved with "EXsong" format**

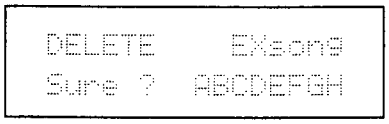
SMF : **A SONG recorded with Standard MIDI Files data format.**

EXdata : **A DATA recorded with the Q-80EX using DATA DUMP operation, and saved with "EXdata" format.**

(4) Use the Increment Dial to select a type of data, and press the **ENTER** switch again to enter next page.

(5) Select the number of the SONG(DATA) to be deleted.

(6) Press the **ENTER** switch.
LCD should read "Sure?"

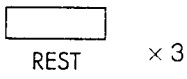


(7) Press **ENTER** again to execute the deletion (or **STOP** to cancel).

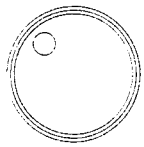
D. FORMAT

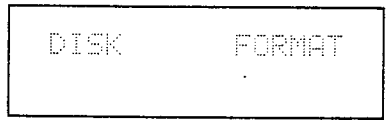
[Function] New disks (or disks which have been previously used with equipment other than the Q-80EX) must be prepared for use before data can be saved to them with the Q-80EX.
This preparation is called "formatting".

(1) Press the **REST** switch 3 times to enter DISK mode.



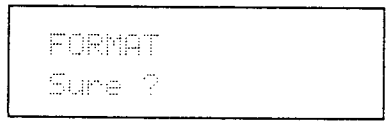
(2) Move the Increment Dial to select the menu "FORMAT".



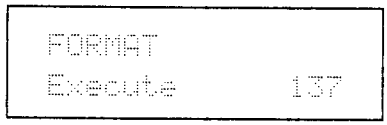


(3) Insert a new disk (or disk already used with other equipment) into the Q-80EX's DISK SLOT.

(4) Press the **ENTER**(PLAY) switch.
LCD should read "Sure?"



(5) Press **ENTER** again to execute the format (or **STOP** to cancel).
The FORMAT operation now begins with a count-down on the right area of the LCD screen.



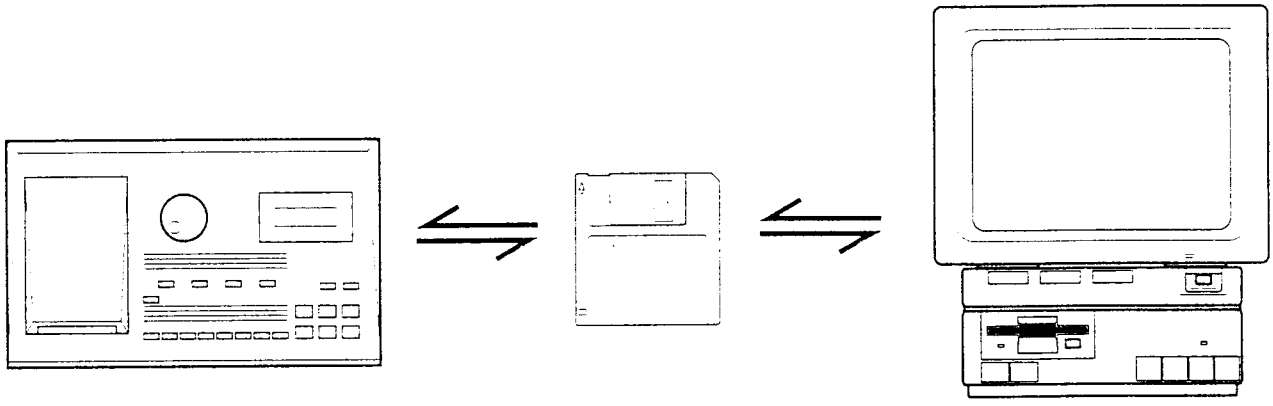
What is the "Standard MIDI Files" data format?

The "Standard MIDI Files" format allows disks containing SONG data recorded on a sequencer to be played back directly on any other "Standard MIDI Files" compatible sequencer, without any data-conversion procedure.

The Q-80EX also provides you with the "Standard MIDI Files" data format.

When using the Standard MIDI Files format, SONGs recorded to disk on a Q-80EX can be played with other sequencers (that are compatible with the Standard MIDI Files format) or computers and their sequencing software.

Conversely, you can also play the SONG data recorded on other sequencer/computers (compatible with Standard MIDI Files) on the Q-80EX.



Standard MIDI Files come in various data formats, two of which are **Format 0 and Format 1.** (The Q-80EX can recognize and play the data of either formats.)

Format 0: Only one TRACK exists in a SONG, and its data can contain Channel information of any or all of the 16 MIDI channels.

Format 1: Many TRACKs exist in a SONG and each TRACK can contain the information of a single MIDI channel

Q-80EX and Standard MIDI Files

	LOAD	SAVE
Data Format	0/1	1
ESC	.MID (*1)	.MID
Tracks	32 (*2)	32 (*3)
Time Base	18 ~ 575 (*4)	96
Tempo	40 ~ 250 (*5)	40 ~ 250
Beat	No limitation of type (*6)	1/4~16/4, 1/8~32/8, 1/16~64/16
Text Event	Does not load	—
Sequence Name	Does not load	—
File Size	Maximum 240Kbyte with "EXsong" format (*7)	—

*1 : Q-80EX cannot load the SONG data with the other ESC than ".MID".
*2 : The tempo message in the data would be recognized as TEMPO TRACK. The tracks over No.33 cannot be loaded.
*3 : The TEMPO TRACK data will be saved being mixed with TRACK1 data.
*4 : Q-80EX cannot playback a song if it has the time base except these values.
*5 : The tempo 1~39 will be changed as "40", and over 251 will be "250".
*6 : If a SONG is recorded with a BEAT type other than these types, the Q-80EX may not display the exact BEAT type value during playing.
*7 : If the song contains SYSTEM EXCLUSIVE message, up to 10Mbyte at once (or totally 10Mbyte for a bar) can be played with Q-80EX.

Note: *The SONG data recorded with Q-80EX/Standard MIDI Files format will be automatically stored with Format 1.*

Q-80EX allows you to playback SONG data disks (2DD) in Standard MIDI Files format with the following computers.

IBM/IBM-PC/NEC

(MS-DOS format / Both 8 sector[640Kbyte] & 9 sector[720Kbyte] are OK)

To play the SONG data recorded with Macintosh, please make sure to format a disk with MS-DOS format (2DD type) with Macintosh before saving SONGs.

When saving the Q-80EX song with Standard MIDI Files format, the following transformation will be executed.

* *MIDI OUT setting* → *all TRACKs "1"*
* *TRACK ON/OFF* → *(TRACKs containing data) : all "ON"*
  (TRACKs without any data) : all "OFF"
* *REPEAT TRACK* → *all TRACKs "OFF"*
* *MOTIF* → *(MOTIFs inserted to TRACKs) : OPEN MOTIF will be executed*
  (100 MOTIFs in MOTIF area) : all deleted

7. Other Notes

SYSTEM RESET

If you want to reset the whole system of the Q-80EX, please use the following procedure.

(1) While holding down the **SELECT** switch when the Q-80EX's power is off...

(2) Turn the power on.

This procedure resets all of the Q-80EX's all SYSTEM parameters, and erases all data in the 10 SONG area and 10 DATA area.

DATA DUMP

When transmitting bulk data using the DATA DUMP function, please use MIDI OUT 1 jack. (MIDI OUT 2 jack outputs no DUMP messages.)

Specifications

SONGS	10 SONGS + 1,000 MOTIFS (100 PER A SONG)
TRACKS	32 PER A SONG + 1 TEMPO TRACK
SONG LENGTH	UP TO 999 BARS
MAXIMUM NOTES	INTERNAL 52,000 NOTES
MAX POLYPHONY	32
TEMPO	40 – 250
CLOCK	INT/MIDI/TAPE
TIME SIGNATURE	1/4 – 64/16
RESOLUTION	96 BPM
REC MODE	REALTIME (W/PUNCH IN · OUT) /STEP
EDIT FUNCTION	BAR EDIT: DELETE, INSERT, ERASE, MIX, COPY, QUANTIZE, VELOCITY MODIFY, GATE TIME MODIFY, EVENT EXTRACT
	EVENT EDIT: INSERT, REPLACE, DELETE
DISK DRIVE	3.5" 2DD FLOPPY DISK
DATA FORMAT	Q-80EX/STANDARD MIDI FILE (FORMAT 0/1)*
OTHER FUNCTION	MIDI DATA FILTER (10 FILES/16 TRACKS)
DIMENSIONS	390 * 232 * 68 MM
WEIGHT	1.5 kg

Model : Q-80EX

MIDI Implementation Chart

Version : 1.0

Function		Transmission	Reception	Remarks
Basic Channel	Default	1–16	1–16	Memorized
	Changed	1–16	1–16	
Mode	Default		X	
	Messages	OMNI ON/OFF•POLY•MONO	X	created by event edit
	Altered	*****		
Note Number		0–127	0–127	
	True voice	*****	0–127	
Velocity	Note ON		*	
	Note OFF	x9n V=0	X	
After Touch	Key's		X	ECHO only
	Ch's		*	
Pitch Bender			*	
Control Changes	0~63		*	
	64~121		*	
	121		*	Reset All Controller
Prog Change			*	
	True #	*****	0–127	
System Exclusive			*	
System Common	: Song Pos			
	: Song Sel			
	: Tune	X	X	
System Real Time	: Clock		**	
	: Commands		**	
Aux Messages	: LOCAL ON/OFF		X	Created by event edit
	: All Notes OFF	X	(123~127)	
	: Active Sense	X	X	
	: Reset	X	X	
Notes		*: Can be set to or X memorized. **: Recognized only when clock is set to MIDI		

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO : Y

Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO X : N

KAWAI